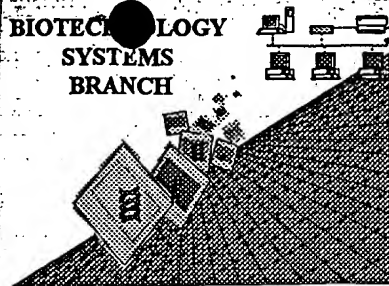# RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: _09/115,589_

Source: _1647_

Date Processed by STIC: _6/30/2000_

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JUL 28 2000

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

TECH CENTER 1600/2900

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,

2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR FURTHER INFORMATION, PLEASE TELEPHONE MARK SPENCER, 703-308-4212.

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE <u>CHECKER VERSION 3.0 PROGRAM</u>, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.
Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

<u>Checker Version 3.0 can be down loaded from the USPTO website at the following address:</u>
http://www.uspto.gov/web/offices/pac/checker

Raw Sequence Listing Error Summary

ERROR DETECTED   SUGGESTED   CORRECTION

SERIAL NUMBER: _09/115,589_

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1 _____ Wrapped Nucleics   The number/text at the end of each line "wrapped" down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".

2 _____ Wrapped Aminos   The amino acid number/text at the end of each line "wrapped " down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".

3 _____ Incorrect Line Length   The rules require that a line not exceed 72 characters in length. This includes spaces.

4 _____ Misaligned Amino Acid   The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs
Numbering   between the numbering. It is recommended to delete any tabs and use spacing between the numbers.

5 _____ Non-ASCII   This file was not saved in ASCII (DOS) text, as required by the Sequence Rules.
Please ensure your subsequent submission is saved in ASCII text so that it can be processed.

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6 _____ Variable Length   Sequence(s) _____ contain n's or Xaa's which represented more than one residue.
As per the rules, each n or Xaa can only represent a single residue.
Please present the maximum number of each residue having variable length and
indicate in the (ix) feature section that some may be missing.

7 _____ PatentIn ver. 2.0 "bug"   A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid
sequence(s) _____. Normally, PatentIn would automatically generate this section from the
previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section
to the subsequent amino acid sequence.

8 _____ Skipped Sequences   Sequence(s) _____ missing. If intentional, please use the following format for each skipped sequence:
(OLD RULES)   **(2) INFORMATION FOR SEQ ID NO:X:**
(i) SEQUENCE CHARACTERISTICS:(Do not insert any headings under "SEQUENCE CHARACTERISTICS")
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X:
This sequence is intentionally skipped

Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s).

9 _____ Skipped Sequences   Sequence(s) _____ missing. If intentional, please use the following format for each skipped sequence.
(NEW RULES)   **<210> sequence id number**
<400> sequence id number
000

10 _✓_ Use of n's or Xaa's   Use of n's and/or Xaa's have been detected in the Sequence Listing.
(NEW RULES)   Use of <220> to <223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

11 _____ Use of <213>Organism   Sequence(s) _____ are missing this mandatory field or its response.
(NEW RULES)

12 _____ Use of <220>Feature   Sequence(s) _____ are missing the <220>Feature and associated headings.
(NEW RULES)   Use of <220> to <223> is MANDATORY if <213>ORGANISM is "Artificial" or "Unknown"
Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32)   (Sec. 1.823 of new Rules)

13 _____ PatentIn ver. 2.0 "bug"   **Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted**
file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing).
Instead, please use "File Manager" or any other means to copy file to floppy disk.

S. Gucker

1647

```
                RAW SEQUENCE LISTING              DATE: 07/07/2000
                PATENT APPLICATION:  US/09/115,589  TIME: 09:34:34

                Input Set : A:\Muscdaml.app
                Output Set: N:\CRF3\07072000\I115589.raw
```

Does Not Comply
Corrected Diskette Needed

pp 1-2

```
    3 <110> APPLICANT: Van Eyk, Jennifer E.
    4         Iscoe, Steven D
    5         Simpson, Jeremy A
    7 <120> TITLE OF INVENTION: Methods of Diagnosing Muscle Damage
    9 <130> FILE REFERENCE: 1997-023-02US
   11 <140> CURRENT APPLICATION NUMBER: 09/115,589
   12 <141> CURRENT FILING DATE: 1998-07-15
   14 <150> PRIOR APPLICATION NUMBER: 60/052,697
   15 <151> PRIOR FILING DATE: 1997-07-16
   17 <160> NUMBER OF SEQ ID NOS: 18
   19 <170> SOFTWARE: PatentIn Ver. 2.1
   21 <210> SEQ ID NO: 1
   22 <211> LENGTH: 12
   23 <212> TYPE: PRT
   24 <213> ORGANISM: Unknown
   26 <220> FEATURE:
   27 <221> NAME/KEY: PEPTIDE
   28 <222> LOCATION: (1)..(12)
   29 <223> OTHER INFORMATION: Myosin light chain 1
   31 <220> FEATURE:
   32 <221> NAME/KEY: PEPTIDE
   33 <222> LOCATION: (7)
   34 <223> OTHER INFORMATION: May be either Pro or Ala
   36 <400> SEQUENCE: 1
W--> 37 Xaa Xaa Lys Lys Pro Glu Xaa Lys Ala Asp Asp Ala
   38     1               5               10
   41 <210> SEQ ID NO: 2
   42 <211> LENGTH: 12
   43 <212> TYPE: PRT
   44 <213> ORGANISM: Unknown
   46 <220> FEATURE:
   47 <221> NAME/KEY: PEPTIDE
   48 <222> LOCATION: (1)..(12)
   49 <223> OTHER INFORMATION: Myosin light chain 1
   51 <400> SEQUENCE: 2
W--> 52 Xaa Pro Ala Pro Ala Ala Ala Pro Ala Ala Ala Pro
   53     1               5               10
   56 <210> SEQ ID NO: 3
   57 <211> LENGTH: 11
   58 <212> TYPE: PRT
   59 <213> ORGANISM: Unknown
   61 <220> FEATURE:
   62 <221> NAME/KEY: PEPTIDE
   63 <222> LOCATION: (1)..(11)
   64 <223> OTHER INFORMATION: malate dehydrogenase
   66 <400> SEQUENCE: 3
W--> 67 Xaa Lys Val Ala Leu Gly Ala Xaa Gly Gly Ile
```

what about Xaa's at location 1 and 2?

see item 10 on Error Summary Sheet

item 10

```
                    RAW SEQUENCE LISTING               DATE: 07/07/2000
                    PATENT APPLICATION:  US/09/115,589  TIME: 09:34:34

                    Input Set : A:\Muscdaml.app
                    Output Set: N:\CRF3\07072000\I115589.raw

        68   1              5                   10
        71 <210> SEQ ID NO: 4
        72 <211> LENGTH: 13
        73 <212> TYPE: PRT
        74 <213> ORGANISM: Unknown
        76 <220> FEATURE:
        77 <221> NAME/KEY: PEPTIDE
        78 <222> LOCATION: (1)..(13)
        79 <223> OTHER INFORMATION: ATP g synthase chain
        81 <400> SEQUENCE: 4
W-->    82 Xaa Xaa Leu Lys Asp Ile Thr Arg Arg Leu Lys Ser Ile
        83   1              5                   10
        86 <210> SEQ ID NO: 5
        87 <211> LENGTH: 10
        88 <212> TYPE: PRT
        89 <213> ORGANISM: Unknown
        91 <220> FEATURE:
        92 <221> NAME/KEY: PEPTIDE
        93 <222> LOCATION: (1)..(10)
        94 <223> OTHER INFORMATION: ATP synthase oligomycin conferring protein
        96 <400> SEQUENCE: 5
W-->    97 Xaa Xaa Lys Leu Val Arg Pro Pro Val Gln
        98   1              5                   10
       101 <210> SEQ ID NO: 6
       102 <211> LENGTH: 10
       103 <212> TYPE: PRT
       104 <213> ORGANISM: Unknown
       106 <220> FEATURE:
       107 <221> NAME/KEY: PEPTIDE
       108 <222> LOCATION: (1)..(10)
       109 <223> OTHER INFORMATION: serum albumin
       111 <400> SEQUENCE: 6
W-->   112 Xaa Ala His Lys Ser Glu Ile Ala His Arg
       113   1              5                   10
       116 <210> SEQ ID NO: 7
       117 <211> LENGTH: 11
       118 <212> TYPE: PRT
       119 <213> ORGANISM: Unknown
       121 <220> FEATURE:
       122 <221> NAME/KEY: PEPTIDE
       123 <222> LOCATION: (4)
       124 <223> OTHER INFORMATION: May be Arg or Leu
       126 <220> FEATURE:
       127 <221> NAME/KEY: PEPTIDE
       128 <222> LOCATION: (1)..(11)
       129 <223> OTHER INFORMATION: triose phosphate isomerase
       131 <400> SEQUENCE: 7
W-->   132 Xaa Pro Ser Xaa Lys Phe Phe Val Gly Gly Asn
       133   1              5                   10
```

Xen 10

Xen 10

Xen 10

Xen 10

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/115,589

DATE: 07/07/2000
TIME: 09:34:34

Input Set : A:\Muscdaml.app
Output Set: N:\CRF3\07072000\I115589.raw

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136 <210> SEQ ID NO: 8
137 <211> LENGTH: 209
138 <212> TYPE: PRT
139 <213> ORGANISM: Unknown
141 <220> FEATURE:
142 <221> NAME/KEY: PEPTIDE
143 <222> LOCATION: (1)..(209)
144 <223> OTHER INFORMATION: Human cardiac troponin I
146 <220> FEATURE:
147 <223> OTHER INFORMATION: Swiss prot identification number P19429
149 <300> PUBLICATION INFORMATION:
150 <303> JOURNAL: FEBS Lett.
151 <304> VOLUME: 270
152 <306> PAGES: 57-61
153 <307> DATE: 1990
155 <400> SEQUENCE: 8
156 Ala Asp Gly Ser Ser Asp Ala Ala Arg Glu Pro Arg Pro Ala Pro Ala
157  1               5                  10                  15
159 Pro Ile Arg Arg Arg Ser Ser Asn Tyr Arg Ala Tyr Ala Thr Glu Pro
160         20                  25                  30
162 His Ala Lys Lys Lys Ser Lys Ile Ser Ala Ser Arg Lys Leu Gln Leu
163         35                  40                  45
165 Lys Thr Leu Leu Leu Gln Ile Ala Lys Gln Glu Leu Glu Arg Glu Ala
166     50                  55                  60
168 Glu Glu Arg Arg Gly Glu Lys Gly Arg Ala Leu Ser Thr Arg Cys Gln
169 65                  70                  75                  80
171 Pro Leu Glu Leu Ala Gly Leu Gly Phe Ala Glu Leu Gln Asp Leu Cys
172         85                  90                  95
174 Arg Gln Leu His Ala Arg Val Asp Lys Val Asp Glu Glu Arg Tyr Asp
175         100                 105                 110
177 Ile Glu Ala Lys Val Thr Lys Asn Ile Thr Glu Ile Ala Asp Leu Thr
178         115                 120                 125
180 Gln Lys Ile Phe Asp Leu Arg Gly Lys Phe Lys Arg Pro Thr Leu Arg
181     130                 135                 140
183 Arg Val Arg Ile Ser Ala Asp Ala Met Met Gln Ala Leu Leu Gly Ala
184 145                 150                 155                 160
186 Arg Ala Lys Glu Ser Leu Asp Leu Arg Ala His Leu Lys Gln Val Lys
187         165                 170                 175
189 Lys Glu Asp Thr Glu Lys Glu Asn Arg Glu Val Gly Asp Trp Arg Lys
190         180                 185                 190
192 Asn Ile Asp Ala Leu Ser Gly Met Glu Gly Arg Lys Lys Lys Phe Glu
193         195                 200                 205
195 Ser
199 <210> SEQ ID NO: 9
200 <211> LENGTH: 186
201 <212> TYPE: PRT
202 <213> ORGANISM: Unknown
204 <220> FEATURE:
205 <221> NAME/KEY: PEPTIDE
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206 <222> LOCATION: (1)..(186)
207 <223> OTHER INFORMATION: Human slow skeletal troponin I
209 <220> FEATURE:
210 <223> OTHER INFORMATION: Swiss prot identification number P19237
212 <300> PUBLICATION INFORMATION:
213 <303> JOURNAL: Genomics
214 <304> VOLUME: 7
215 <306> PAGES: 346-357
216 <307> DATE: 1990
218 <400> SEQUENCE: 9
219 Pro Glu Val Glu Arg Lys Pro Lys Ile Thr Ala Ser Arg Lys Leu Leu
220   1               5              10              15
222 Leu Lys Ser Leu Met Leu Ala Lys Ala Lys Glu Cys Trp Glu Gln Glu
223           20              25              30
225 His Glu Glu Arg Glu Ala Glu Lys Val Arg Tyr Leu Ala Glu Arg Ile
226           35              40              45
228 Pro Thr Leu Gln Thr Arg Gly Leu Ser Leu Ser Ala Leu Gln Asp Leu
229     50              55              60
231 Cys Arg Glu Leu His Ala Lys Val Glu Val Val Asp Glu Glu Arg Tyr
232   65              70              75              80
234 Asp Ile Glu Ala Lys Cys Leu His Asn Thr Arg Glu Ile Lys Asp Leu
235               85              90              95
237 Lys Leu Lys Val Met Asp Leu Arg Gly Lys Phe Lys Arg Pro Pro Leu
238           100             105             110
240 Arg Arg Val Arg Val Ser Ala Asp Ala Met Leu Arg Ala Leu Leu Gly
241           115             120             125
243 Ser Lys His Lys Val Ser Met Asp Leu Arg Ala Asn Leu Lys Ser Val
244     130             135             140
246 Lys Lys Glu Asp Thr Glu Lys Glu Arg Pro Val Glu Val Gly Asp Trp
247 145             150             155             160
249 Arg Lys Asn Val Glu Ala Met Ser Gly Met Glu Gly Arg Lys Lys Met
250             165             170             175
252 Phe Asp Ala Ala Lys Ser Pro Thr Ser Gln
253             180             185
256 <210> SEQ ID NO: 10
257 <211> LENGTH: 181
258 <212> TYPE: PRT
259 <213> ORGANISM: Unknown
261 <220> FEATURE:
262 <221> NAME/KEY: PEPTIDE
263 <222> LOCATION: (1)..(181)
264 <223> OTHER INFORMATION: Human fast skeletal troponin I
266 <220> FEATURE:
267 <223> OTHER INFORMATION: Swiss prot identification number P48788
269 <300> PUBLICATION INFORMATION:
270 <303> JOURNAL: Biochim. Biophys. Acta
271 <304> VOLUME: 1217
272 <306> PAGES: 338-340
273 <307> DATE: 1994
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RAW SEQUENCE LISTING   DATE: 07/07/2000
PATENT APPLICATION: US/09/115,589   TIME: 09:34:35

Input Set : A:\Muscdam1.app
Output Set: N:\CRF3\07072000\I115589.raw

```
275 <400> SEQUENCE: 10
276 Gly Asp Glu Glu Lys Arg Asn Arg Ala Ile Thr Ala Arg Arg Gln His
277   1               5                  10                 15
279 Leu Lys Ser Val Met Leu Gln Ile Ala Ala Thr Glu Leu Glu Lys Glu
280              20                  25                 30
282 Glu Ser Arg Arg Glu Ala Glu Lys Gln Asn Tyr Leu Ala Glu His Cys
283          35                  40                 45
285 Pro Pro Leu His Ile Pro Gly Ser Met Ser Glu Val Gln Glu Leu Cys
286      50                  55                 60
288 Lys Gln Leu His Ala Lys Ile Asp Ala Ala Glu Glu Glu Lys Tyr Asp
289   65                  70                 75                 80
291 Met Glu Val Arg Val Gln Lys Thr Ser Lys Glu Leu Glu Asp Met Asn
292              85                  90                 95
294 Gln Lys Leu Phe Asp Leu Arg Gly Lys Phe Lys Arg Pro Pro Leu Arg
295             100                 105                110
297 Arg Val Arg Met Ser Ala Asp Ala Met Leu Lys Ala Leu Leu Gly Ser
298          115                 120                125
300 Lys His Lys Val Cys Met Asp Leu Arg Ala Asn Leu Lys Gln Val Lys
301         130                 135                140
303 Lys Glu Asp Thr Glu Lys Glu Arg Asp Leu Arg Asp Val Gly Asp Trp
304 145                 150                 155                160
306 Arg Lys Asn Ile Glu Glu Lys Ser Gly Met Glu Gly Arg Lys Lys Met
307                 165                 170                175
309 Phe Glu Ser Glu Ser
310             180
313 <210> SEQ ID NO: 11
314 <211> LENGTH: 210
315 <212> TYPE: PRT
316 <213> ORGANISM: Unknown
318 <220> FEATURE:
319 <221> NAME/KEY: PEPTIDE
320 <222> LOCATION: (1)..(210)
321 <223> OTHER INFORMATION: Rat cardiac troponin I
323 <220> FEATURE:
324 <223> OTHER INFORMATION: Swiss prot identification number P23693
326 <300> PUBLICATION INFORMATION:
327 <303> JOURNAL: Biochemistry
328 <304> VOLUME: 30
329 <306> PAGES: 707-712
330 <307> DATE: 1991
332 <400> SEQUENCE: 11
333 Ala Asp Glu Ser Ser Asp Ala Ala Gly Glu Pro Gln Pro Ala Pro Ala
334   1               5                  10                 15
336 Pro Val Arg Arg Arg Ser Ser Ala Asn Tyr Arg Ala Tyr Ala Thr Glu
337              20                  25                 30
339 Pro His Ala Lys Lys Lys Ser Lys Ile Ser Ala Ser Arg Lys Leu Gln
340          35                  40                 45
342 Leu Lys Thr Leu Met Leu Gln Ile Ala Lys Gln Glu Met Glu Arg Glu
343      50                  55                 60
```

```
VERIFICATION SUMMARY                     DATE: 07/07/2000
PATENT APPLICATION:  US/09/115,589       TIME: 09:34:36

          Input Set : A:\Muscdaml.app
          Output Set: N:\CRF3\07072000\I115589.raw

L:37 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:52 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:67 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:82 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:97 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:112 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:132 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:153 M:285 W: Invalid Journal Date: Wrong YYYY-MM-DD,MMM-YYYY or SEASON-YYYY, Wrong Journal Date:YYYY-MM-
DD,MMM-YYYY or Season-YYYY
L:216 M:285 W: Invalid Journal Date: Wrong YYYY-MM-DD,MMM-YYYY or SEASON-YYYY, Wrong Journal Date:YYYY-MM-
DD,MMM-YYYY or Season-YYYY
L:273 M:285 W: Invalid Journal Date: Wrong YYYY-MM-DD,MMM-YYYY or SEASON-YYYY, Wrong Journal Date:YYYY-MM-
DD,MMM-YYYY or Season-YYYY
L:330 M:285 W: Invalid Journal Date: Wrong YYYY-MM-DD,MMM-YYYY or SEASON-YYYY, Wrong Journal Date:YYYY-MM-
DD,MMM-YYYY or Season-YYYY
L:393 M:285 W: Invalid Journal Date: Wrong YYYY-MM-DD,MMM-YYYY or SEASON-YYYY, Wrong Journal Date:YYYY-MM-
DD,MMM-YYYY or Season-YYYY
L:504 M:285 W: Invalid Journal Date: Wrong YYYY-MM-DD,MMM-YYYY or SEASON-YYYY, Wrong Journal Date:YYYY-MM-
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L:579 M:285 W: Invalid Journal Date: Wrong YYYY-MM-DD,MMM-YYYY or SEASON-YYYY, Wrong Journal Date:YYYY-MM-
DD,MMM-YYYY or Season-YYYY
L:654 M:285 W: Invalid Journal Date: Wrong YYYY-MM-DD,MMM-YYYY or SEASON-YYYY, Wrong Journal Date:YYYY-MM-
DD,MMM-YYYY or Season-YYYY
L:726 M:285 W: Invalid Journal Date: Wrong YYYY-MM-DD,MMM-YYYY or SEASON-YYYY, Wrong Journal Date:YYYY-MM-
DD,MMM-YYYY or Season-YYYY
L:804 M:285 W: Invalid Journal Date: Wrong YYYY-MM-DD,MMM-YYYY or SEASON-YYYY, Wrong Journal Date:YYYY-MM-
DD,MMM-YYYY or Season-YYYY
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